

ABSTRACT

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ADVANCED TERRAIN ANTI-COLLISION DEVICE

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The field of the invention is that of onboard terrain anticollision
15 systems for aircraft.

Collisions with the terrain while the aircraft is fully controlled have
been and still remain one of the main causes of air disasters.

Several generations of devices for warning of risk of collision with
the terrain have been developed for some thirty years now. The most
20 advanced of these systems comprise means of alarm differing according to
the maneuver to be performed by the pilot. It is of course vital that the
recommended maneuver best guarantee the safety of the aircraft. The device
according to the invention proposes a device comprising the calculation of
several different safety surfaces or profiles. Their comparisons with the
25 topographic data of the surrounding terrain make it possible to deduce
therefrom the best alarm and the best maneuver to be performed to avoid the
collision between the aircraft and the ground.

FIGURE 9